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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/733,586 | 12/11/2003 | Anthony F. Veneruso | 68.0320 | 8254 |

35204 7590 04/19/2006

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EXAMINER

YACOB, SISAY

ART UNIT PAPER NUMBER

2612

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,586

Applicant(s)

VENERUSO ET AL.

Examiner

Sisay Yacob

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-22 and 27 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10 and 23 is/are rejected.
- 7) ☒ Claim(s) 4, 11-17 and 24-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1 The application of Veneruso et al., "Fused and sealed connector system for permanent reservoir monitoring and production control" filed on December 11, 2003 been examined.

Claims 1- 27 are pending

Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3 The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3, 5-10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK (GB) Publication of Talbot (2320984).

5 As to claim 1, Talbot discloses an isolation system for use in electrical device circuits, the isolation system comprising a plurality of electrical devices (Page 3, 1-5), a current source adapted to supply a reverse-polarity current to the electrical devices, and a fuse set to blow upon receiving the reverse-polarity current wherein at least one fuse is arranged between the current source and one of the electrical devices (Abstract, lines 2-3; Page 1, lines 14-23; Page 1, lines 6-25; Items 20, 24, 26 and 62), however, Talbot does not expressly disclose the isolation system for use in electrical circuits being in well.

It would have been obvious, to one of ordinary skilled in the art, at the time of the invention, to use the isolation system for use in electrical device circuits of Talbot in a well, in order to have an isolation system for use in electrical circuits well, the isolation system comprising a plurality of electrical devices in the well, a current source adapted to supply a reverse-polarity current to the electrical devices, and a fuse set to blow upon receiving the reverse-polarity current wherein at least one fuse is arranged between the current source and one of the electrical devices, because Talbot discloses fuses are widely used to protect electrical circuits (Page 1, lines 6-7) and one of ordinary skill in the art recognizes the isolation system comprising a plurality of electrical devices may be incorporated in any environment where electrical devices are employed.

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6 As to claim 2, the isolation system of claim 1, further, Talbot discloses wherein each electrical device comprises a reverse-polarity protection diode (Item 62 of figure 1).

7 As to claim 3, the isolation system of claim 1, further, Talbot discloses wherein a fuse is located between each electrical device and the current source (Items 18, 24 and 62 of figure 1).

8 As to claim 5, the isolation system of claim 1, further, Talbot discloses an electrical line adapted to connect the current source to the electrical devices (Page 3, lines 18-19; Item 60 of figure 2).

9 As to claim 6, Talbot discloses a system for use in electrical device circuits, the system comprising a fuse in communication with and between an electrical line and electrical device, a reverse-polarity current source, and a reverse-polarity protection diode in communication with and between the electrical device and the fuse (Abstract, lines 2-3; Page 1, lines 14-23; Page 1, lines 6-25; Items 20, 24, 26 and 62), however, Talbot does not expressly disclose the a system for use in a well, the system comprising a fuse in communication with and between an electrical line and electrical device that is a downhole electrical device.

It would have been obvious, to one of ordinary skilled in the art, at the time of the invention, to use the system of Talbot in a well, in order to have a system for use in a

well, the system comprising a fuse in communication with and between an electrical line and a downhole electrical device, a reverse-polarity current source, and a reverse-polarity protection diode in communication with and between the electrical device and the fuse, because Talbot discloses fuses are widely used to protect electrical circuits (Page 1, lines 6-7) and one of ordinary skill in the art recognizes the isolation system comprising a plurality of electrical devices may be incorporated in any environment where electrical devices are employed.

10 As to claim 7, the system of claim 6, further, Talbot discloses wherein the reverse-polarity current source is adapted to deliver a current of sufficient magnitude to blow each fuse (Page 1, lines 6-10, 15-20).

11 As to claim 8, the system of claim 7, further, Talbot discloses an operating current source connectable to the electrical line (Item 18 of figure 1), wherein the operating current source is adapted to deliver a current of sufficient magnitude to operate the electrical devices (Page 1, lines 6-10, 15-20; Page 3, lines 1-5; Page 4, lines 19-22).

12 As to claim 9, the system of claim 8, wherein each diode is adapted to provide a current path from the electrical line to the electrical device in response to the operating current (Page 4, lines 19-25), and to interrupt the current path from the electrical line to the electrical device in response to the reverse-polarity current (Page 3, lines 18-25).

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13 As to claim 10, the system of claim 9, further comprising a switching device moveable between: (i) a first position wherein the electrical devices are in connection with the power source (Page 4, lines 19-25), and (ii) a second position wherein the electrical devices are in connection with the reverse-polarity current source (Page 3, lines 18-25; Page 5, lines 1-11).

14 As to claim 23, Talbot discloses a method comprising electrically isolating a short circuited electrical device from another electrical device by blowing a fuse (Abstract, lines 2-3; Page 1, lines 14-23; Page 1, lines 6-25; Items 20, 24, 26 and 62), however, Talbot does not expressly disclose electrical devices being located downhole.

It would have been obvious, to one of ordinary skilled in the art, at the time of the invention, to use the method comprising electrically isolating a short circuited electrical device from another electrical device by blowing a fuse of Talbot in a well, in order to have a method comprising electrically isolating a short circuited electrical device from another electrical device by blowing a fuse, wherein the electrical devices are located downhole, because Talbot discloses fuses are widely used to protect electrical circuits (Page 1, lines 6-7) and one of ordinary skill in the art recognizes the isolation system comprising a plurality of electrical devices may be incorporated in any environment where electrical devices are employed.

Claim Objections

15 Claims 4, 11-17 and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16 Referring to claim 11, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that the electrical devices comprise gauges adapted to measure data in the well and communicate the data to a surface monitoring system.

17 Referring to claim 16, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that a seal between the fuse and each electrical device, the seal adapted to hydraulically isolate each electrical device to prevent an infiltrating conductive fluid from migrating throughout the electrical devices.

18 Referring to claim 17, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that each fuse is fabricated from a material capable of enduring downhole thermal and mechanical stress.

Allowable Subject Matter

Claims 18-22 and 27 are allowed.

19 Referring to claim 18, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that a downhole connector, comprising: a housing, comprising: (i) a first electrical connection, (ii) a second electrical connection, and (iii) a third electrical connection, a plurality of fuses, comprising: (i) a first fuse arranged between the first electrical connection and the second electrical connection, and (ii) a second fuse arranged between the first electrical connection and the third electrical connection; and a plurality of seals, comprising: (i) a first seal located near the second electrical connection, and (ii) a second seal located near the third electrical connection.

20 Referring to claim 27, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that A method, comprising: providing a plurality of electrical devices connected to an electrical line in a well, the electrical line comprising a tubular encasement, preventing hydraulic flow through at least a portion of the electrical line, and selectively isolating the electrical devices using fuses.

Conclusion

21 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following cited arts are further to show the state of art related to providing a reverse current flow through a diode to blow a fuse and sealed electrical connector system.

22 In the US patent of (6,821,162) Mott et al., discloses a method and an apparatus for providing a high efficiency seal in an electrical connector.

23 In the JP patent of (07280621) Kawasaki Toshikazu et al., discloses a method and an apparatus for providing a reverse current flow through a diode to blow out a fuse.

24 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

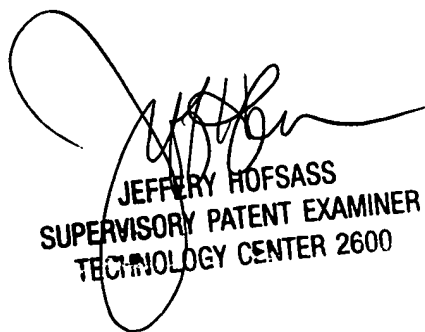
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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sisay Yacob

04/11/2006

S-Y


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